

Application Serial No. 10/750,483
Amendment dated July 17, 2006
Reply to Office Action dated April 17, 2006

Amendments to the Drawings

The attached sheets of drawings include changes to FIGS. 2 and 5. The two sheets, which include FIGS. 2-4 and 5, respectively, replace the original sheets including FIGS. 2-4 and 5. In FIG. 2, the AC and DC power supplies are more clearly indicated. In FIG. 5, the separator, filter, spectrometer and/or processor element 70, inadvertently omitted in the formal drawings, has been added, as shown in original FIG. 5.

Attachment: 2 Replacement Sheets
Annotated Sheets Showing Changes

Remarks

Applicants have received and carefully reviewed the Office Action mailed April 17, 2006. Claims 1-30 are pending, with claims 1-5 and 16-30 withdrawn from consideration. Claims 6 and 8 have been amended and claim 7 has been canceled. Support for the amendments is found in the specification, claims, and drawings as originally filed. No new matter has been added. Reconsideration and reexamination are respectfully requested.

Objection to the Drawings

The Examiner objected to the drawings as not showing the spectrometer, A.C. voltage supply, D.C. voltage supply, and processor as recited in the claims. FIGS. 2 and 5 have been amended to more particularly show the AC and DC voltage supplies, which were shown in the original figures with text. FIG. 2 has been amended to show the separator, filter, spectrometer and/or processor 70, which was shown in the original figures as filed, but was inadvertently omitted when formal drawings were prepared. The amendments to the drawings are thus supported by the drawings as originally filed and contain no new matter. Reconsideration and withdrawal of the drawing objection are respectfully requested.

Rejection under 35 U.S.C. § 102(b)

Claims 6-8 are rejected as being anticipated by Vojak et al. (US 2002/0113553). Independent claim 6, as amended, recites a sensor having first and second electrodes each having a plurality of prongs, where the first and second electrodes are substantially contained within a channel. Vojak et al. do not appear to teach such a sensor. Vojak et al. appear to teach a device having interdigitated electrodes 14 in contact with a cavity 16 formed by a through hole which penetrates a plurality of bonded ceramic layers 12. See paragraph [0014] and FIG. 1A. The electrodes 14 do not appear to be substantially contained within the through hole 16 formed in the ceramic layers 12 of the device of Vojak et al. Vojak et al. thus do not appear to teach each

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and every element of independent claim 6 or claim 8, which is dependent therefrom.

Reconsideration and withdrawal of the rejection are respectfully requested.

Rejection under 35 U.S.C. § 103(a)

Claims 9, 10, and 15 are rejected as being unpatentable over Vojak et al. in view of Wentworth et al. (US 5,153,519). For at least the reasons set forth above, Vojak et al. do not appear to teach the basic elements of independent claim 6, from which claims 9, 10, and 15 depend. Wentworth et al. do not appear to provide what Vojak et al. lacks. Additionally, there does not appear to be any motivation, suggestion or guidance for one of ordinary skill in the art to combine the teachings of Vojak et al. and Wentworth et al. The Examiner asserts that it would have been obvious to one skilled in the art to incorporate the spectrometer of Wentworth et al. into the sensor of Vojak et al. to more accurately detect the discharge by making it possible to analyze the system both during and after the spark. The only teaching of a spark, however, appears to be in Wentworth et al. Wentworth et al. appears to teach advantages of using a spectrometer for optical inspection of the gap during the spark. This does not, however, appear to provide any motivation for one of ordinary skill in the art to incorporate the spectrometer of Wentworth et al. into the device of Vojak et al. because Vojak et al. do not appear to teach any spark being generated. Applicants submit that there is no motivation to combine Vojak et al. and Wentworth et al., and that even if one were to make such a combination, one would not arrive at the sensor as recited in the claims. Reconsideration and withdrawal of the rejection are respectfully requested.

Claims 11 and 12 are rejected as being unpatentable over Vojak et al. in view of Wentworth et al. as applied to claim 9, and further in view of Wiegand, Jr. (US 3,657,600). Claims 13 and 14 are rejected as being unpatentable over Vojak et al., Wentworth et al., Wiegand, Jr., and Pompei et al. (US 4,016,524). For at least the reasons set forth above, Vojak et al. do not appear to teach the basic elements of independent claim 6, from which claims 11-14 depend. None of Wentworth et al., Wiegand, Jr., or Pompei et al. appear to provide what Vojak et al. lacks. Thus, any combination of the references also fails to teach or suggest each and every

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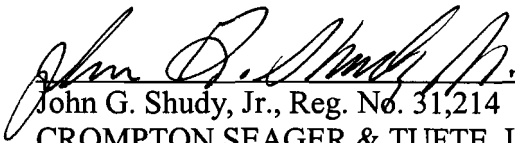
element of the claims. Further, claims 11-14 recite additional elements not found or suggested by the references. Reconsideration and withdrawal of the rejections are respectfully requested.

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Reconsideration and reexamination are respectfully requested. It is submitted that, in light of the above remarks, all pending claims are now in condition for allowance. If a telephone interview would be of assistance, please contact the undersigned attorney at 612-677-9050.

Respectfully submitted,

Date: 07-17-06


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